Tech Info Library

Apple IIGS: Specifications (Discontinued)

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Revised:        9/13/93
Security:       Everyone
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Article Created: 6 October, 1986

I. Technical Specifications

    A. Central Processing Unit (CPU)

        1. Microprocessor: 65C816

        2. Clock speeds: 2.8 or 1.0 megahertz
            -- Speed selected by user or software

        3. Address bus: 24 bits

        4. Data bus: 8 bits

        5. Address range: 16,777,216 bytes

        6. 16-bit registers:
            a. Accumulator
            b. 2 index registers
            c. Direct register
            d. Stack pointer
            e. Program counter

        7. 8-bit registers:
            a. Data bank
            b. Program bank
            c. Status

        8. Addressable memory (as used in the Apple IIGS):
            a. RAM: Up to 8 megabytes
            b. ROM: Up to 1 megabyte

    B. Memory

1. RAM: 256 kilobytes
            -- Expandable to 8 megabytes

        2. ROM: 128 kilobytes
            -- Expandable to 1 megabyte
            a. Control Panel
            b. QuickDraw II graphics routines
            c. Applesoft BASIC
            d. Desk Accessory Manager
            e. Memory Manager
            f. Free-form sound playback capabilities
            g. Apple IIe and IIc soft switches and supporting code
            h. AppleTalk protocols
            i. Apple DeskTop Bus firmware
            j. SANE (trademark) numerics
            k. Event Manager
            l. Tool Locator
            m. Video firmware
            n. Drivers for built-in devices:
                -- Mouse and ports for serial interface
                   and disk drive
            o. Extensions to system monitor for 65C816 support
            p. Diagnostic routines

C. Display modes

    1. Graphics
        a. Super-high-resolution
            1. 320 dots horizontally by 200 dots vertically
                -- Colors per line: Up to 16
                -- Colors per screen: 256 from 4096
            2. 640 dots horizontally by 200 dots vertically
                -- Colors per line: 4 or more
                -- Colors per screen: 128 from 4096
        b. Double-high-resolution
            -- 560 dots horizontally by 192 dots vertically
            -- Monochrome
        c. Double-low-resolution
            -- 80 dots horizontally by 48 dots vertically
            -- Colors: 16
        d. High-resolution
            -- 280 dots horizontally by 192 dots vertically
            -- Colors: 6
        e. Low-resolution
            -- 40 dots horizontally by 48 dots vertically
            -- Colors: 16

    2. Text

        a. 40-column text mode
            -- 40 columns by 24 lines
        b. 80-column text mode
            -- 80 columns by 24 lines

D. Character sets

    1. Letters
        a. Uppercase: 32
        b. Lowercase: 32

    2. Characters:
        a. Special: 32
        b. MouseText: 32
        c. Unique: 12
            -- For each international character set: U.S., U.K.,
               French, Danish, Spanish, Italian, German, and
               Swedish

E. Keyboard

    -- Standard typewriter-style

    1. Keys:
        a. Main board: 80
        b. Numeric keypad: 14

    2. Apple DeskTop Bus (ADB) connectors: 2
        a. For attaching keyboard to computer
        b. For daisy-chaining a maximum of 16 ADB input devices

    3. Layouts: 11
        -- Selected through Control Panel
        a. QWERTY (Sholes)
        b. Dvorak
        c. International sets: 9
            -- U.S., French Canadian, U.K., French, Danish,
               Spanish, Italian, German, and Swedish

F. Sound capability

    1. Ensoniq 32-oscillator digital synthesizer chip
        -- Dedicated 64K RAM

    2. Simultaneous voices: Up to 15

    3. Output:
        a. Internal speaker
        b. Audio output jack:
          - Inside diameter 3.60mm
          - Accepts a 3.5mm stereo plug
        c. Signal-to-noise ratio: 48bd
        d. Volume adjusted from Control Panel

G. Interfaces

    1. Expansion slots

a. Multipurpose RAM and ROM expansion slot
                b. General purpose input/output slots: 7
                        -- For peripheral control cards
                        -- Each slot fully buffered
                        -- Interrupt and DMA priority

        2. Serial ports: 2
                -- 8-pin mini-circular connectors
                -- AppleTalk
                -- Utilize SCC communication chip

        3. Disk drive port:
                -- 19-pin D-style connector
                -- Supports daisy-chaining

        4. Video output
                a. Analog RGB via 15-pin D-style connector
                b. Composite color via RCA phono connector

        5. Apple DeskTop Bus ports: 3
                -- 4-pin mini-circular connector
                a. On back of IIGS: 1
                b. On keyboard: 2

        6. Game I/O: 9-pin D-style connector
                -- For joysticks, graphics tablet, etc.

        7. Audio
                a. RCA mini jack
                        -- Programmable volume control
                b. Input/output connector on main logic board

H. Operating systems

        1. ProDOS (registered trademark):
                a. ProDOS 8
                b. ProDOS 16

        2. Pascal

        3. DOS 3.3

        4. CP/M
                -- With appropriate co-processor card

I. Other Features

        -- Real time clock
                -- Set through Control Panel

        -- Battery backup for Control Panel settings

J. Electrical

1. Line voltage: 107 to 132 volts AC; 50 to 60 Hertz

        2. Power consumption:
            -- Typical: 11 watts
            -- Maximum: 60 watts

        3. Supply:

                Voltage   Voltage   Maximum current
                in volts   Tolerance in milliamps (ma)

            a. + 5   3%   2500 ma
            b. +12   6%   1500 ma
            c. - 5   10%   250 ma
            d. -12   10%   250 ma

        4. Safety and EMI qualifications
            a. FCC Part 15, Class B Computing Devices
            b. CSA 22.2, No, 154-1979
            c. UL 114-Office Appliances and Business Equipment

    K. Environmental

                                    Degrees
                                    Celsius Fahrenheit
        1. Ambient operating temperature: 0 to 45   32 to 113
        2. Maximum temperature
                on power supply case: 55   130

        3. Relative humidity: 5% to 85%

    L. Physical

                  mm   inches
        1. Width: 284 11.2
        2. Depth: 348 13.7
        3. Height: 117 4.6

        4. Weight: 3.96kg or 8.72 pounds

Article Change History

12/14/92 - Modified to add Discontinued to title
08/23/89 - Reviewed For technical accuracy

Tech Info Library Article Number:1937